U. S. DEPARTMENT OF ENERGY WORK BREAKDOWN STRUCTURE DICTIONARY PART II - ELEMENT DEFINITION

PROJECT TITLE/PARTICIPANT Environmental Management/Paducah Remediation Services, LLC (PRS)		2. DATE 06/29/07	3. IDENTIFICATION SITE Paducah Project DOE Ports Project Office (PPPO)	mouth/Paducah
4. WBS ELEMENT CODE 04.11.05.01		5. WBS ELEMENT TITLE On-Site CERCLA Cell		
6. INDEX LINE NO. 7. REVISION N		NO. AND AU	THORIZATION	8. DATE 01/31/08
9. APPROVED CHANGES N/A				
10. SYSTEM DESIGN DESCRIPTION N/A			11. BUDGET AND REPORT N/A	TING NUMBER

12. ELEMENT TASK DESCRIPTION

WBS STRUCTURE

The scope of the On-Site Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Cell (OSCC) includes the following subelements:

- WBS 04.11.05.01.01 OSCC Subproject Management
- WBS 04.11.05.01.02 OSCC Facility Assessment
- WBS 04.11.05.01.03 CERCLA Documents
- WBS 04.11.05.01.04 Communications Plan/Implementation Plan

INTRODUCTION

It currently is estimated that a future need will exist for disposal of approximately 3.1 million yd³ of radioactively contaminated, nonradioactively contaminated, and hazardous material (soil and building debris). Currently, the majority of remediation-generated waste is being disposed of at the on-site C-746-U Landfill, Nevada Test Site (NTS), or at the Energy *Solutions* facility in Utah.

A number of seismic studies have been completed and reviewed by the Commonwealth of Kentucky (KY) and U.S. Environmental Protection Agency (EPA). The seismic conditions at the PGDP have been studied at the southern portion of the plant site (northeast of Post 57) and at the northern portion near the C-746-U Landfill. Numerous discussions with KY and EPA had occurred during the planning, implementation, and reporting of both studies. These studies do not indicate there is Holocene faulting at the areas where the studies were conducted. KY and EPA, however, have not yet agreed with this conclusion; therefore, the CERCLA process will be utilized to assess the feasibility of designing, constructing, and operating an on-site CERCLA disposal cell at the Paducah Gaseous Diffusion Plant (PGDP) for remediation-generated contaminated/hazardous waste.

LOGIC RELATIONSHIPS

Interfaces:

Internal to PRS:

- All PRS project managers and staff
- All subcontractors

External to PRS:

- U.S. Department of Energy (DOE) PPPO and support contractors
- DOE Headquarters or other DOE sites (if applicable)
- EPA
- KY

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- Site tenants including United States Enrichment Corporation (USEC); Uranium Disposition Services, LLC; and Swift and Staley Team (SST)
- USEC services in the area of property, information technology, radios, etc.
- SST, particularly in the areas of property management, information technology, and security.
- NTS: Profiling and disposition of newly generated and classified and fissile LLW, if required or applicable.
- Energy Solutions: Profiling, treatment, and disposition of mixed and low-level waste (LLW), if required or applicable.
- Toxic Substances Control Act (TSCA) Incinerator, if required or applicable.
- Commercial treatment, storage, or disposal (TSD) Facility: For treatment and disposal of non-radioactive hazardous waste, if required or applicable.
- Stakeholders
- Citizens Advisory Board and supporting contractor EHI.
- DOE Integrated Safety Management System (ISMS) Verification Team
- · Other non-regulatory key interfaces

Time Sequencing with Other Work:

• This WBS element is not tied closely to any other activities at Paducah during the course of the contract.

SCOPE DESCRIPTION

WBS 04.11.05.01.01 OSCC Subproject Management

Provide overall management activities associated with this subproject. Activities performed under this subelement include the following:

- Perform technical, contractual, and project functions necessary to effectively manage and report scope, schedule, and budget.
- Maintain all activities within the defined safety, environmental, and quality requirements.
- Perform technical and personnel management functions.
- Maintain technically qualified and properly trained personnel.
- Develop, evaluate, and report project performance metrics.
- Interface with DOE, KY, EPA, other prime contractors, and stakeholders, as needed.

The method(s) used for determining earned value for this WBS element is Level of Effort.

WBS 04.11.05.01.02 OSCC Facility Assessment

Perform a comprehensive facility assessment to assemble the data necessary to complete the planning/CERCLA process for the design, construction, and operation of an OSCC. The following subtasks will be accomplished under this WBS subelement:

Assessment of Waste Volumes and Types

Using existing data on waste that may be placed in an on-site disposal facility, prepare a database that categorizes the projected waste in terms of source, waste type, waste volume, and contaminant concentrations. The database also will include a data field to specify when this waste is projected to be available for disposal. The waste is available for disposal when it has been characterized fully and is ready for final disposition.

 Assemble available projections of waste that will be generated or remain on-site and need disposal starting in fiscal year (FY) 2010, the year after decision document approval. These projections will include information about the contaminants in the waste and their concentrations in the waste. The

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waste volume assessment includes waste estimates through FY 2032, which is the current end date of the decommissioning and decontamination (D&D) in the life cycle baseline (LCB).

- Categorize those projections by waste type, waste source, and potential for disposal in on-site or nearby facilities that will be less expensive than the proposed cell.
- Develop total and year-by-year estimates of the volumes of each category of waste, including volumes of any "bedding" that may be needed (e.g., for debris) through final PGDP D&D.
- Prepare a computer database of the waste projections, including the contaminant concentrations in the different wastes, that easily can be compared to the preliminary waste acceptance criteria (WAC) to determine how much and which types of the projected waste can be placed in the on-site disposal cell.
- Maintain the waste projections database to incorporate any major revisions to projections over the life of the contract.
- Existing information on waste types and volumes are expected to be sufficient for the feasibility study (FS); hence, no measurements of waste characteristics under this project are anticipated. Waste types include the following categories: LLW, Resource Conservation and Recovery Act (RCRA), TSCA, LLW/RCRA, LLW/TSCA, LLW/RCRA/TSCA, and sanitary (U-Landfill waste).

Site Screening

Site screening consists of regulatory, technical, and land ownership considerations. Some examples of tasks to be performed include review of state and federal regulations, available area, locations of floodplains, seismic considerations, hydrologic considerations, National Environmental Policy Act (NEPA) considerations, and long-term land use restrictions. Conduct site visits and interview personnel to determine potential candidate sites. Evaluate potential sites at the PGDP (up to five) and select no more than three candidate sites for evaluation in the remedial investigation/feasibility study (RI/FS). Prepare a site selection white paper for DOE review and comment. Conduct meetings with KY and EPA to discuss potential sites. Conduct meetings with the public to present potential sites.

- Review state and federal regulations, in particular those in 40 *CFR* § 264.18, 40 *CFR* § 761.75, 401 *KAR* § 34 and 38, and 902 *KAR* § 100, and prepare a list of applicable or relevant and appropriate requirements (ARARs) and to be considered (TBCs).
- Identify and determine NEPA considerations.
- Review and determine future land uses based on information available at this time.
- · Conduct site visits of potential sites.
- Conduct interviews with personnel for potential sites for any conflicts with land use.
- Obtain groundwater data from data base, plume maps etc., at potential sites.
- Maximum use will be made of the prior site screening as reported in DOE/OR/07-1939&D1, as well as recent seismic studies and applicable Oak Ridge documents
- Two meetings, the first one with DOE and the second with KY and EPA, will be held to receive comments on site screening factors. A final set of factors will be published and approved by DOE and KY and EPA.
- Up to five potential locations on the Paducah Site will be evaluated for approval by DOE.
- Up to three candidate sites will be selected for evaluation in the RI/FS.
- Prepare a site selection white paper for DOE review and comment.
- Prepare for and conduct meetings with the KY and EPA to discuss potential sites and issues.
- Prepare for and conduct meetings with the public to present sites considered.
- Projections of contaminant plumes from residual contamination after cleanup at Paducah will be
 made available that will allow evaluation of potential sites in terms of the tendency of any releases
 from the CERCLA cell to reinforce those plumes and, therefore, increase risks and doses from the
 entire Paducah Site.
- Sufficient hydrogeology data is available to support screening of the potential sites against the site

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screening criteria.

 Existing projections of waste that might be placed in the on-site CERCLA disposal facility will be sufficient for site screening.

Preparation of Conceptual Design

Prepare conceptual designs for each of the candidate sites selected, taking into consideration site-specific conditions such as seismicity, hydrogeology, flood potential, and soil stability, as well as requirements for operating and closing the cell. Retain as many common features among the designs as the differences in the sites allow. The conceptual design will be detailed enough to support the development of a preliminary WAC and a life cycle cost analyses.

- Assemble information about soil characteristics at the candidate sites.
- Prepare a preliminary conceptual design and discuss it with DOE. This design will delineate the general size and shape of the disposal cell, elevation below and above ground level, and general materials to be used.
- Obtain agreement on the preliminary conceptual design.
- Refine the approved preliminary conceptual design, particularizing it, if necessary, for each of the candidate sites.
- Determine volumes and types of materials to be excavated.
- Prepare a detailed conceptual cover design for use in estimating precipitation infiltration rates in developing preliminary WAC.
- Prepare drawings and material descriptions for the conceptual design in sufficient detail to allow cost estimates to be made for the life cycle cost analysis. The drawings will include vertical sections including local terrain that will allow calculation of distances to the saturated zone.
- Existing data is sufficient to develop the conceptual design for the purpose of comparing on-site and off-site disposal. No additional measurements will have to be made.
- The terrain and other features of the candidate sites are similar enough that a single conceptual
 design will, with only minor changes, suffice for the purpose of comparative evaluations of on-site
 disposal cells at the candidate sites and off-site disposal.
- Conceptual designs will be prepared for the projected total waste volume to be placed in the on-site cell. That volume will be presented to DOE for approval.
- The design will consider a single cell for waste, even though the facility ultimately may be built with multiple cells in a phased approach. This level of detail is assumed to be sufficient for the purposes of costing and development of the preliminary WAC.

Development of Preliminary WAC

Based on projected risks and doses from sources at Paducah, including reviewing the existing on-site disposal facility (U-Landfill), develop a preliminary WAC for the OSCC. Using those WACs and the waste database, estimate how much waste volume can be put into the existing on-site disposal facility and how much can be put into the OSCC.

- Develop candidate risk and dose criteria for protection of human health and the environment.
- Develop candidate critical receptor locations and receptor activities.
- Discuss the risk and dose criteria and the candidate receptors with DOE and KY and EPA, and determine the criteria and receptors to be used in developing the analytic WAC.
- Assemble a list of projected contaminants in the waste.
- Assemble data concerning the projected contaminants that influence their migration and impacts at Paducah. These will include risk slope factors, reference doses, distribution coefficients (K_ds) in vadose and saturated zone soils and in soil waste, radiation decay half-lives, food pathway transfer coefficients, gamma ray shielding characteristics, etc.
- · Assemble information on the conceptual disposal facilities and the sites, including dimensions, soil

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types, thicknesses of the vadose zones, etc.

- Using the computer codes used in developing the analytic WAC for the CERCLA disposal facility at Oak Ridge, and other codes, if necessary, and assuming unit concentrations in the waste for each contaminant, calculate projected doses and risks to the chosen receptors from each candidate site.
- From those projected doses and risks and the dose and risk criteria, calculate preliminary analytic WAC for each candidate site.
- Using the database on projected wastes, estimate the volumes of those wastes that can meet the WAC for each site.
- Develop preliminary physical WAC. Physical characteristics such as the size and shape of the waste will be evaluated.
- Temporal and locational projections of residual contamination from other sources at the Paducah
 Site are used in this task. These are needed to estimate the combined effects of those sources and
 potential releases from the on-site disposal cell in order to derive risk- and dose-based preliminary
 WAC
- Existing information about the hydrogeology at the Paducah Site is sufficient to allow estimation of contaminant travel in both the saturated and unsaturated zones below and adjacent to the site, as well as discharges into the local surface waters.
- The same models and computer codes used to develop preliminary and final analytic WAC for the Oak Ridge CERCLA disposal facility (HELP, K_d leaching, MODFLOW, MODPATH, MT3D, and PATHRAE) will be used. These models have been accepted by EPA Region 4 for the purpose of developing WAC at Oak Ridge.

Life Cycle Cost Analysis

Conduct life cycle cost analyses for disposal of the waste on-site and off-site, including present value analyses. As a measure to conduct this task efficiently, maximum use will be made of experience in similar analyses for the on-site CERCLA disposal facility in Oak Ridge. This will include preparing cost estimates for characterizing the site, design, construction and operation of the OSCC. Additionally, cost estimates for closure and long-term surveillance and maintenance.

- Review the conceptual designs for the candidate sites.
- Review experience costs for characterizing, constructing, and operating the on-site CERCLA disposal facility [Environmental Management Waste Management Facility (EMWMF)] at Oak Ridge.
- Prepare cost estimates for characterizing the site, designing, constructing, and operating the
 conceptual designs at the candidate sites. Maximum use will be made of the information on similar
 costs at the EMWMF.
- Prepare cost estimates for closure and long-term surveillance and maintenance at the candidate sites.
- Assemble information on disposal, transportation, packaging, and additional waste preparation for off-site disposal at a site chosen in concert with DOE.
- Prepare a cost estimate for off-site disposal of the same wastes assumed for the on-site disposal cost analysis.
- Using projected time histories of waste needing disposal and an agreed-upon projected opening date for the on-site disposal facility, conduct present value analyses for the cost of disposal at the candidate on-site locations and for off-site disposal.

The method(s) used for determining earned value for this WBS element is Percent Complete.

WBS 04.11.05.01.03 CERCLA Documents

CERCLA/Federal Facility Agreement (FFA) documents pertaining to the planning and construction of an on-site CERCLA disposal cell will be prepared under this WBS subelement. Documents to be completed and associated WBS subelements are listed below.

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Planning and Scoping

Conduct activities to prepare planning and scoping for the OSCC prior to beginning the RI/FS. The project planning task will be conducted to include involvement of EPA and Commonwealth of Kentucky and also include involvement with the CAB and public. Planning should include discussions to identify objectives to potentially locate a CERCLA waste disposal facility at PGDP, discuss previous work completed at PGDP and methods used at other DOE sites, exchange philosophies and solicit suggestions to determine criteria to potentially locate a waste disposal facility at PGDP. Conduct meetings with EPA and Commonwealth of Kentucky to discuss the planning activities for the OSCC and then prepare and submit a scoping document for review.

- Prepare for and conduct an initial kickoff meeting to initiate discussions with EPA and Commonwealth of Kentucky.
- Prepare for and conduct 2 additional meetings with EPA and Commonwealth of Kentucky to build upon previous discussions.
- Meetings will be conducted to solicit input from EPA and Commonwealth of Kentucky to develop a working relationship with the expectation of developing a successful plan.
- Participate and arrange teleconferences as needed to continue discussions between the meetings.
- As the planning continues, plan and prepare a presentation to brief the CAB on the planning activities and current status.
- Determine the content needed for a scoping document that serves as the background for the planning and scoping for this project.
- Conduct meetings with DOE during the planning and scoping process to provide updates.
- Conduct meetings and teleconferences with the EPA and Commonwealth of Kentucky during the scoping document preparation.
- Prepare a draft (D0) scoping document for DOE review and revise the draft document to incorporate comments.
- Prepare a CRS and conduct a comment resolution meeting with DOE on comments received on the D0 scoping document.
- Prepare a D1 scoping document for submittal and review from EPA and Commonwealth of Kentucky.
- Incorporate comments from the D1 scoping document into the RI/FS.
- Conduct monthly meetings with the CAB during the scoping document preparation.
- Prepare fact sheets during preparation of the scoping document to issue to the public.
- Prepare for and conduct an RI/FS scoping meeting with EPA and Commonwealth of Kentucky.

Remedial Investigation/Feasibility Study Work Plan (RI/FS WP)

Develop a RI/FS WP to support a Remedial Investigation/Feasibility Study Report in which disposal alternatives for waste generated by CERCLA response actions are evaluated. The plan will be developed in a manner consistent with the FFA for PGDP. The specific document outline may depart from that presented in the FFA and more closely follow the outline presented in the January 2008 FFA Managers Meeting.

Remedial Investigation/Feasibility Study (RI/FS)

Perform activities to complete an RI/FS Report for the three candidate sites selected for the OSCC identifying risks to human health and the environment. This task will be completed utilizing existing information and fieldwork is not planned to support this activity. The D0 drafts of this report will be developed and submitted for internal review, then issued to DOE for review and approval. Comments from DOE will be incorporated and a final D1 draft will be submitted to KY and EPA for review and comment. A final D2 document will be developed and submitted to KY and EPA for approval.

• Existing information is assumed to exist and no field data collection effort at the three candidate sites for the OSCC will be required. While additional data collection beyond that described in the

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preceding sentence may be required by regulations, KY and EPA, the public, etc., it is assumed that collection of additional data on those parts for the RI/FS will not be necessary; therefore, the cost of collecting such data is not included in this proposal.

- Prepare an analysis of the combined maximum impacts on public health and safety, in terms of projected doses from radionuclides in the waste placed in the Paducah OSCC, and other residual radioactive contamination from the Paducah Site. This analysis will satisfy the requirements of DOE Order 435.1 for a composite analysis of dose from sources on a DOE site.
- Assemble a final list of ARARs/TBCs.
- Prepare a description of the process of the selection of the preferred alternative from among those analyzed in the RI/FS.
- Assemble the information from the FS; prepare supporting text, explanations, and graphics; and prepare the draft RI/FS.
- One meeting and preparation of visual aids with DOE to discuss the draft RI/FS; one meeting with visual aids each with KY and EPA to discuss the D1 draft RI/FS.
- Conduct a meeting with the DOE reviewers to clarify items in the draft and receive informal comments.
- Revise the draft based on DOE comments and prepare the D1 draft RI/FS. Submit printed copies of
 the D1 draft to KY and EPA and provide electronic copies for placement on the PRS and DOE Web
 sites. Prepare printed copies for distribution of the D1 draft to public reading rooms. Prepare CDROMs for distribution as requested.
- Attend comment resolution meetings with KY and EPA, as approved by DOE.
- Revise the D1 draft based on regulator comments and prepare the D2 draft RI/FS.
- Assist DOE in obtaining regulator approval of the D2 RI/FS.
- Submit printed copies of the D2 RI/FS to DOE, KY, and EPA and electronic copies for placement on the PRS and DOE Web sites. Prepare printed copies for distribution to public reading rooms.

Proposed Plan (PP)

The draft D0 PP will be developed and submitted for internal review, then issued to DOE for review and approval. Comments from DOE will be incorporated and a final draft D1 PP will be submitted to KY and EPA for review and comment. A final D2 PP will be developed and submitted to KY and EPA for approval.

- Develop a draft PP and distribute it to DOE, KY, and EPA.
- Meet with DOE, KY, and EPA to discuss the PP.
- Revise the PP based on DOE and regulator comments and prepare a D1 draft PP.
- Obtain KY and EPA approval of the D1 PP.
- Print copies for distribution to the appropriate public reading rooms. Prepare CD-ROMs for distribution as requested.
- Hold a public meeting to gather stakeholder input on the proposed alternative.
- Prepare visual aids and conduct one meeting with DOE, KY, and EPA to discuss the draft.

Record of Decision (ROD) and Land Use Control Implementation Plan (LUCIP)

A draft D0 ROD and LUCIP will be developed and submitted for internal review, then issued to DOE for review and approval. Comments from DOE will be incorporated and a final draft D1 ROD and LUCIP will be submitted to KY and EPA for review and comment. A final D2 ROD and LUCIP will be developed and submitted to KY and EPA for approval.

- Assemble information and prepare the draft ROD/LUCIP, include a history of regulator and public participation in the CERCLA process leading to the ROD, including comments made on the PP.
- Conduct a meeting with DOE reviewers to clarify items in the draft and receive comments.
- Revise the draft based on DOE comments and prepare the D1 draft.

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- Submit printed copies of the D1 draft to DOE, KY, and EPA and electronic copies for placement
 on the PRS and DOE Web sites. Prepare printed copies for distribution of the D1 draft to public
 reading rooms. Prepare CD-ROMs for distribution, as requested.
- Prepare presentation materials for meetings with KY and EPA to present and discuss the D1 ROD/LUCIP.
- Schedule and attend meetings with KY and EPA.
- Revise the D1 draft based on regulator and public comments and prepare the D2 draft ROD/LUCIP incorporating a response to public comment from the public meeting (Responsiveness Summary).
- Obtain approval from KY and EPA of the D2 draft ROD.
- Submit printed copies of the D2 (final) ROD/LUCIP to DOE, KY, and EPA and electronic copies for
 placement on the PRS and DOE Web sites. Prepare printed copies for distribution to public
 reading rooms. Prepare CD-ROMs for distribution as requested.

The method(s) used for determining earned value for this WBS element is Percent Complete.

WBS 04.11.05.01.04 Communications Plan/Implementation Plan

Develop a communications plan that will identify steps beyond those required by the Community Relations Plan (CRP) that DOE could take to foster greater public participation in the CERCLA process. Six drafts of this document will be required- three internal drafts to incorporate DOE comments, one final draft for public release.

Develop an implementation plan that will identify actions that DOE and its contractor will take to ensure public participation activities identified in the CRP and the communications plan are well attended, well orchestrated, and beneficial to the CERCLA process. Three internal drafts of this document will be required to incorporate DOE comments. There will be not public release on this plan.

The method(s) used for determining earned value for this WBS element is Percent Complete.

DELIVERABLES

WBS 04.11.05.01.01 OSCC Subproject Management

Element Milestones

None

Element Deliverables

- Paducah PRS Quality Assurance (QA) Project Plan
- Paducah PRS ES&H Plan
- Provide input to the following reports and submittals (if applicable):
 - Monthly Project Performance Report
 - Risk Management Plan Updates
 - Site Management Plan (SMP)
 - SWMU Assessment Report
 - o Semiannual Critical Analysis Report
 - o Presentations
 - FFA briefings
 - Labor determinations
 - Gold Chart Performance Metrics
 - Annual updates to Site Treatment Plan
 - o Annual Compliance Agreement Report

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- o Annual ISMS Update
- o Annual Work Smart Standards Update
- o Financial Reporting, Management Analysis Reporting System
- o Annual Statement of Costs Incurred and Claimed
- o FFA Semiannual Progress Report
- o Remedial Action/Regulatory Commitment Tracking Report
- o Other reports/documents, as necessary

WBS 04.11.05.01.02 OSCC Facility Assessment

Element Milestones

• Site Selection White Paper

Element Deliverables

- A Site Selection White Paper
- A projected waste database
- · Conceptual design for the candidate site
- Preliminary WAC
- Life cycle cost analysis

WBS 04.11.05.01.03 CERCLA Documents

Element Milestones

- Approval of Scoping Document
- · Approval of the D2 RI/FS WP
- Approval of the D2 RI/FS
- · Approval of the PP
- Approval of the ROD/LUCIP

Element Deliverables

- Deliver the D1 Scoping Document
- Deliver the D1 and D2 drafts of the PP, and D1 and D2 drafts of the RI/FS WP, RI/FS and ROD. Both printed and electronic versions of all drafts and the final versions will be provided.

WBS 04.11.05.01.04 Communications Plan/Implementation Plan

Element Milestones

- Approval of Communications Plan
- Approval of Implementation Plan

Element Deliverables

- Communications Plan
- Implementation Plan

REQUIREMENTS

- CERCLA/National Contingency Plan
- KY Hazardous Waste Permit (KY8-890-008-982)
- . FFA for the PGDP
- SMP for the PGDP (annual revisions)
- Applicable state and federal laws and regulations (applicable or relevant and appropriate

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requirements)

- PRS ISMS
- UEO-1066, as updated Lease Agreement between DOE and USEC, Revision 4, dated October 30, 2001
- Enclosure to GDP 95-0018, as updated USEC and DOE Resolution of Shared Site Issues, Revision 1, dated March 30, 1998
- Applicable PRS plans, policies, and procedures.
- WAC for all applicable treatment and disposal facilities that were in effect on April 24, 2006.
- Applicable DOE Orders
- Applicable Federal Acquisition Regulations

It is the core value of PRS that the safety and health of every worker, the public at large, and our environment are the most important assets that we are entrusted to protect. To accomplish this, an ISMS, based on DOE's ISMS, has been implemented that incorporates the five core functions and is based on the seven guiding principles. The objective of ISMS is to systematically integrate safety and environmental protection into the planning and execution of all work activities. The term safety encompasses Nuclear Safety, Industrial Safety, Industrial Hygiene, Occupational Health, Health Physics, and environmental issues. ISMS requirements flowdown to PRS subcontractors. The five core functions are (1) define the scope of work, (2) analyze hazards, (3) develop and implement hazard controls, (4) perform work within controls, and (5) provide feedback and continuous improvement. The seven guiding principles are (1) line management responsibility for safety, (2) clear roles and responsibilities, (3) competence commensurate with responsibility, (4) balanced priorities, (5) identification of safety standards and requirements, (6) hazard control tailored to work being performed, and (7) operations authorization.

Before a subproject begins, several activities must be completed that demonstrate that all involved in the project have completed rigorous health and safety reviews and that all potential hazards of doing the work have been identified. The routine activities in remedial actions are conducted in accordance with standard operating procedures, activity hazard analyses, and Integrated Safety Management plans. Nonroutine work will require a readiness assessment, as necessary, to ensure complete health, safety, and environmental reviews prior to work start. This assessment is conducted by people experienced in similar kinds of work with the right to examine all aspects of a project about to commence and requires that the project team provide documented evidence that any applicable requirements of the job have been met.

SCOPE ASSUMPTIONS

- Records and backup calculations of previous siting studies, including the Seismic Investigation
 Report for Siting of a Potential On-Site CERCLA Waste Disposal Facility at the Paducah Gaseous
 Diffusion Plant, Paducah, Kentucky, D1 and D2, and the Identification and Screening of Potential
 Candidate Sites for a (CERCLA) Waste Disposal Facility at the Paducah, DOE/OR/07-1939&D1, will
 be available.
- The activities in the facility assessment will be similar to those conducted in analyzing alternatives
 for the Oak Ridge CERCLA disposal facility. Furthermore, maximum use will be made of work of the
 same nature already performed for Paducah, such as reported in DOE/OR/07-1939&D1.
- A public meeting will be required as part of the CERCLA process.
- The requirements of NEPA can be accommodated within the CERCLA framework; an Environmental Impact Statement will not be required.

COMPLETION CRITERIA

1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION SITE
Environmental Management/Paducah	06/29/07	Paducah Project DOE Portsmouth/Paducah
Remediation Services, LLC (PRS)		Project Office (PPPO)
4. WBS ELEMENT CODE	5. WBS EL	EMENT TITLE
04.11.05.01	On-Site CE	ERCLA Cell

WBS 04.11.05.01.01 OSCC Subproject Management

- Completion of technical and reporting requirements for the activities performed under this WBS element.
- Delivery of copies of documents to the Infrastructure contractor for placement in the Environmental Information Center and completion of the Administrative Record.

WBS 04.11.05.01.02 OSCC Facility Assessment

• Completion of subelements of this WBS element in sufficient detail to prepare the corresponding parts of the CERCLA decision documents. This includes DOE approval/concurrence of the Site Selection White Paper, the waste database, conceptual design, preliminary WAC, and life cycle cost analysis.

WBS 04.11.05.01.03 CERCLA Documents

- · Regulatory approval of the D2 RI/FS WP
- Regulatory approval of the D2 RI/FS
- · Regulatory approval of the D2 PP
- Regulatory approval of the D2 ROD/LUCIP

WBS 04.11.05.01.04 Communications Plan/Implementation Plan

- Delivery of the Communications Plan
- Delivery of the Implementation Plan

RISK MANAGEMENT

See the Risk Management Plan for analysis.

Risk was mitigated through the following efforts:

- Continue to perform due diligence in all work activities to reduce the possibility of safety incidents.
- Ensure that documents are written professionally and accurately.

BASIS OF ESTIMATE

1. Summary of Site Conditions

- Site conditions are of limited impact to this task. It is assumed existing information exists and no work will be accomplished at the project site. Clearance of personnel is not anticipated to be a requirement.
- The activities within this scope element primarily are engineering design and performance analysis in nature with no significant site condition issues.

•	in nature with no This work will be	significant site cor office activity.	ndition issues.
_	Estimating Method Parametric	ds ☐ Bottom-Up	○ Other: Bottom-Up and Parametric Methods were used
	design, and, as a commercial dispo	stimate is based of ppropriate, licensional cells for CER	on experience gained in the performance assessment, siting, ing of numerous DOE, Department of Defense (DOD), and CLA and RCRA waste (Subtitle D), as well as experience in siting The most significant of these is the Y-12 EMWMF CERCLA cell at

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DOE's Oak Ridge Operations (ORO), which is used to dispose of CERCLA waste for the entire ORO.

4. Basis of Estimate (Unescalated Values)

WASTE VOLUMES

See attached waste performance metrics, as applicable.

PROJECT SCHEDULE

See attached schedule.

BASELINE BY YEAR

See attached Baseline by Year Report.